



SHAKESPEARE OIL COMPANY, INC.

BAHM #1-21

940' FSL & 2000' FEL of Section 21-T16S-R34W
SCOTT COUNTY, KANSAS
API#15-171-21061-00-00

Geologist's Report WellSight Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Bahm #1-21

Location: 940' FSL & 2000' FEL of Section 21-T16S-R34W

License Number: API#15-171-21061-00-00

Spud Date: 6/26/2014

Surface Coordinates: 940' FSL & 2000' FEL of Section 21-T16S-R34W

Region: Scott County, Kansas
Drilling Completed: 7/06/2014

Bottom Hole Coordinates: Vertical Test

5 1/2" @ 4895'

Ground Elevation (ft): 3135

K.B. Elevation (ft): 3147

Logged Interval (ft): 3750

To: RTD Total Depth (ft): RTD 4900 LTD 4900

Formation: Mississippi

Type of Drilling Fluid: Chemical (Displacement complete @ 3535)

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

Operator

Company: Shakespeare Oil Company, Inc. KLN# 7311

Address: 202 W Main

Salem, IL 62881

Geologist

Name: Richard S.(Steve) Davis Jr.

Company: Consulting Petroleum Geologist

Address: 224 N. Main Street Suite 260

Company: Shakespere Oil Company, Inc. KLN# 7311
 Address: 202 W Main
 Salem, IL 62881

Geologist

Name: Richard S.(Steve) Davis Jr.
 Company: Consulting Petroleum Geologist
 Address: 221 N. Market, Suite 268
 Wichita, Kansas 67202

FORMATION TOPS

Formation	Sample	E-Log	Datum	Formation	Sample	E-Log	Datum
			KB	3147			
Anhydrite	2451	2452	+695	Hushpuckney	4373	4371	-1224
B/Anhydrite	2471	2471	+676	Lansing I	4383	4384	-1237
Topeka	3824	3826	-679	BKC	4425	4419	-1272
Heebner	4001	3999	-852	Marmaton	4472	4471	-1324
Toronto	4014	4014	-867	Pawnee	4563	4561	-1414
Lansing	4042	4041	-894	Fort Scott	4602	4602	-1455
Lansing D	4156	4156	-1009	Cherokee Sh	4630	4629	-1482
Muncie Creek	4227	4227	-1080	Johnson	4674	4675	-1528
Lansing H	4238	4239	-1092	Mississippi	4817	4815	-1668
Lansing I	4275	4276	-1129	Total Depth	4900	4900	-1753
Lansing J	4303	4301	-1154				
Stark	4325	4324	-1177				
Lansing K	4338	4339	-1192				

DAILY PENETRATION: 7:00 AM

Date	Depth	Activity
06/26/14	0	MIRU & Spud
06/27	267	WOC
06/28	1215	Drig
06/29	2138	Drig
06/30	3016	Drig
07/01	3535	Drig

CONTRACTOR:

Southwind Drilling, Rig #70
 Toolpusher: Sam Staggs
 MUD:
 Mud Co (displacement complete @ 3535')
 Reid Atkins & Tyler Lang
DRILL STEM TESTING: Trilobite Testing Inc.
 Will MacLean

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06/27	267	WOC
06/28	1215	Drig
06/29	2138	Drig
06/30	3016	Drig
07/01	3535	Drig
07/02	4080	Drig
07/03	4479	Drig
07/04	4520	Drig
07/05	4635	Drig
07/06	4771	Drig
07/07	4900	Run 5 1/2"

CONTRACTOR:

Southwind Drilling, Rig #70
 Toolpusher: Sam Staggs
MUD:
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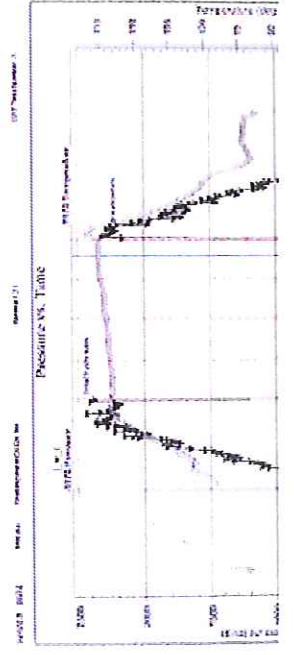
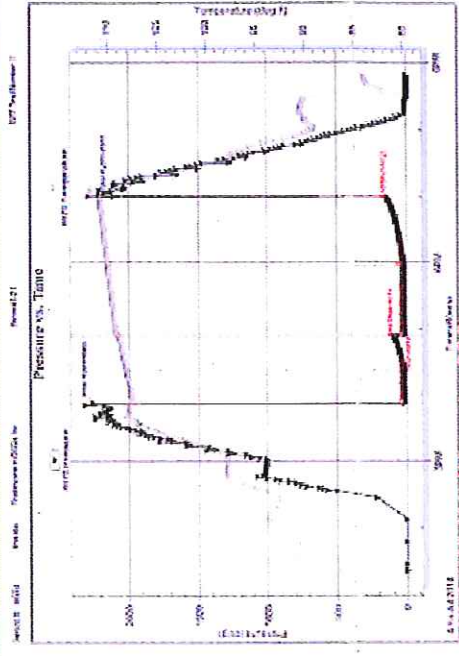
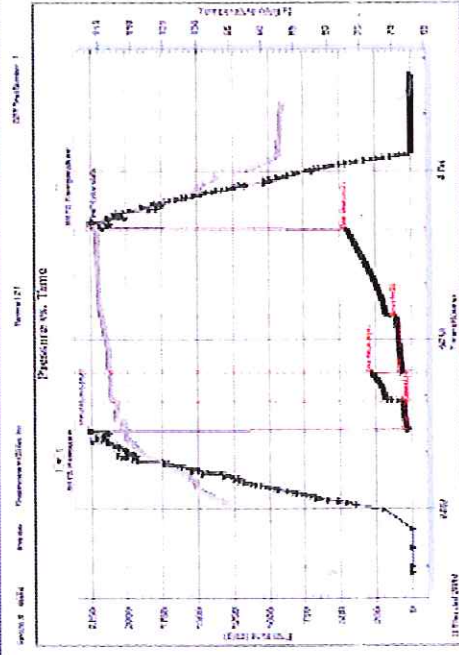
ELECTRIC LOG: Weatherford
 Ben Weldin
 (DIL, CDL/CNL, PE, MEL & Sonic)

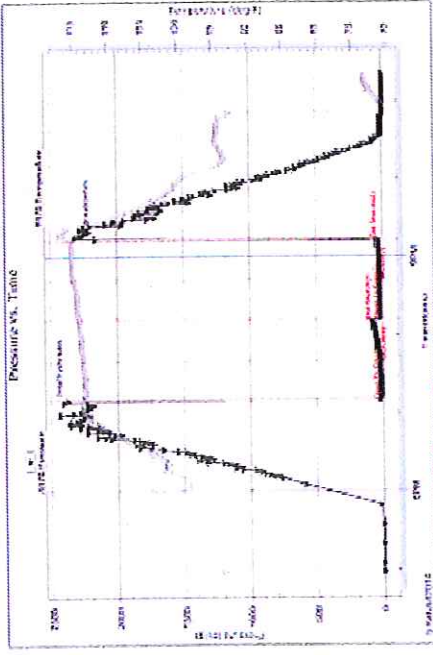
CASING RECORD:

Surface: 8 5/8" @ 267' w/190 sx
 Production: 5 1/2" @ 4895'

BIT RECORD:

Bit No./Size	Make/Type	Out	Fig	Hrs
#1/ 12 1/4"	RTC/RT	267	267	3 3/4
#2/ 7 7/8"	RTC/S52P	4900	4633	137 1/4





- LITHOLOGY**
- Anhy
 - Bent
 - Brec
 - Cht
 - Clyst

- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst

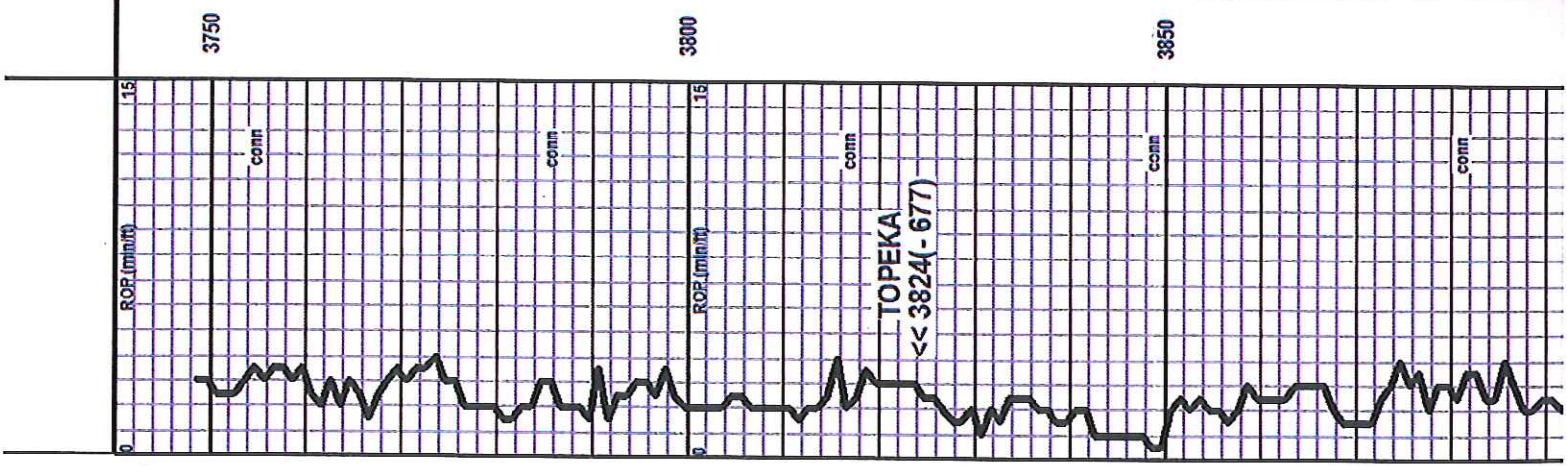
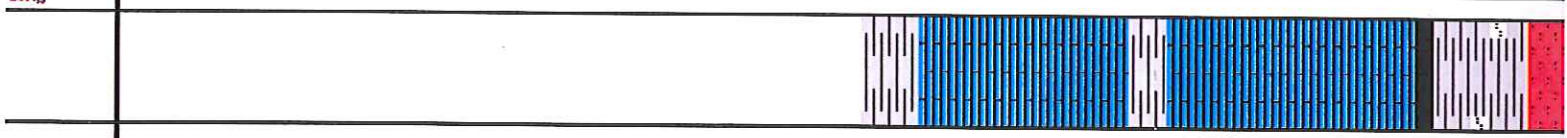
- Rock Types**
- Meta
 - Mrlst
 - Salt
 - Shale
 - Shcol
 - Shgy

- Siltst
- Ss
- Till
- OIL SHOW
- Even

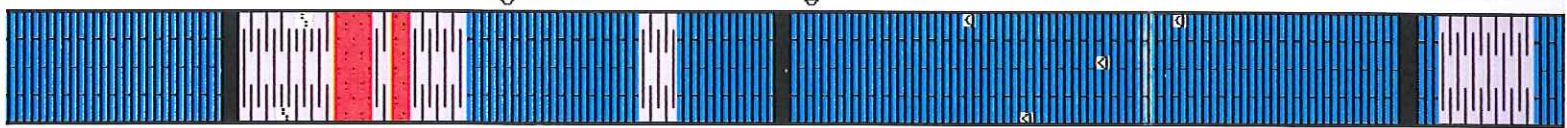
- Spotted
- Ques
- Dead

ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks
<p>ROP (min/ft)</p> <p>ROP (min/ft)</p>				
	3750			

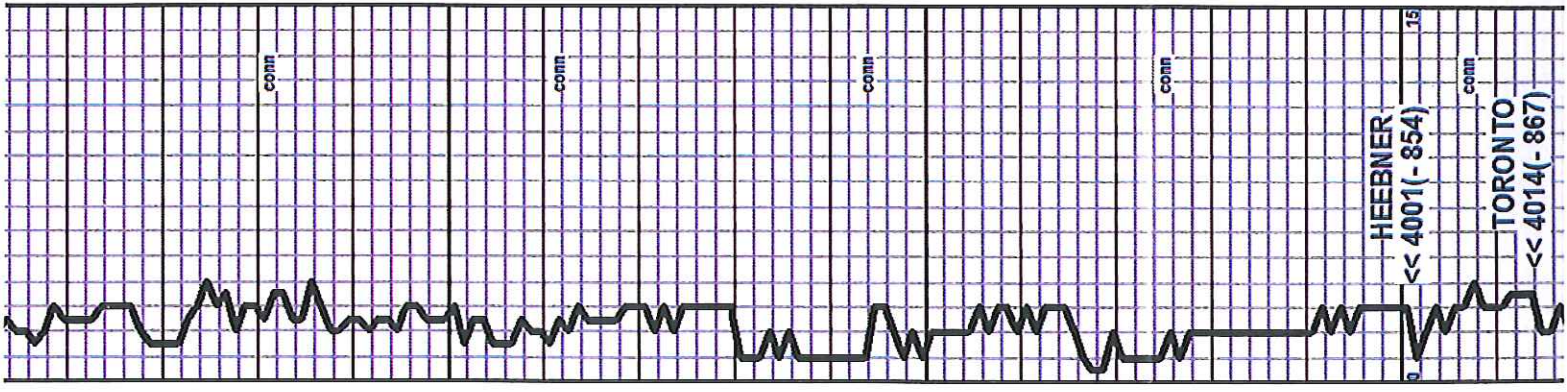
<p>Start 10' Wet & Dry Spl's</p>	<p>LS, crm-gray, fxl n, chky IP, foss & ool, P por, NS, fd</p> <p>LS, tan-gray, f-ixln, arg, silty foss, NW por, dense</p> <p>Shale, black, dk gray</p> <p>LS, crm-white, fxl n, chky IP, foss & ool, rr P vgy por, NS</p> <p>LS, tan-gray, f-ixln, silty foss, NW por dense</p> <p>LS, crm-off white, fxl n, foss & ool, chky IP, P ixln por, NS</p> <p>Shale, black carb</p> <p>Shale, gray, black, gm & mar, silty</p>
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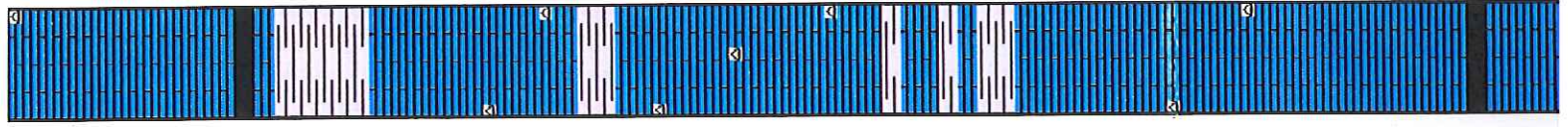
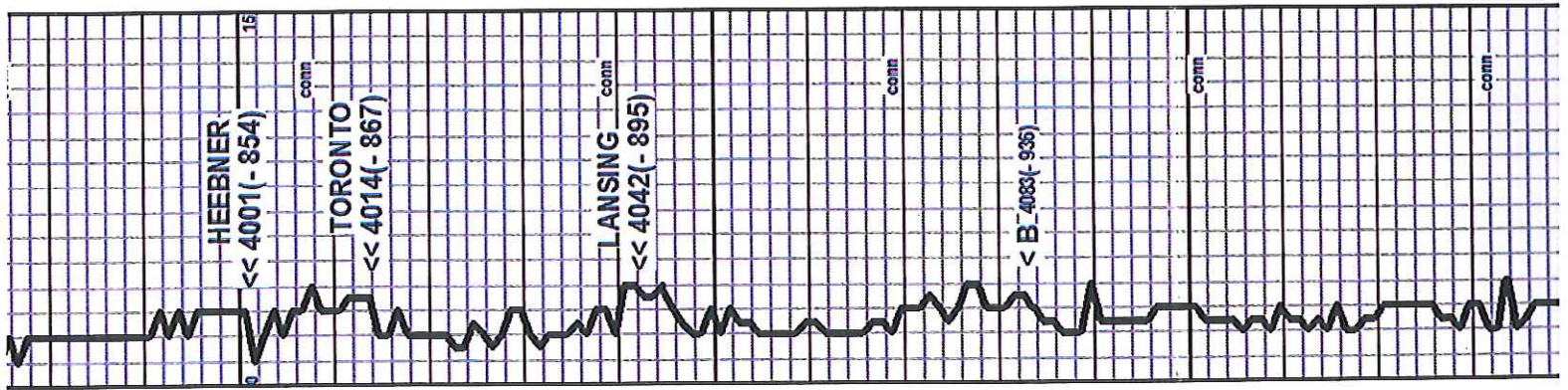


por, NS
 LS, tan-gray, f-xln, silty foss, NW por dense
 LS, crm-off white, f-xln, foss & ool, chky IP, P, ixln por, NS
 Shale, black carb
 Shale, gray, black, gm & mar, silty
 Shale AA + Silst, gray-gm
 LS, crm-white, f-xln, chky IP, silty foss, P vgy por, S SFO(hvy), spt'd dk stn, spt'd dull fluor, N odor
 LS, gray-tan, f-xln, silty foss, NW por, dense
 Shale, black-dk gray & rust
 LS, gray-tan, f-xln, silty foss, NW por, dense, NW por
 Shale, black carb + pyr
 LS, crm-tan, f-xln, foss & ool, F-P ipart por, SSFO(hvy), spt'd dk stn, spt'd dull fluor, N odor
 LS, gray-tan, f-xln, gran, silty foss, NW por, hd + Cht, gray, silty foss, opq
 LS, crm-off white, mot, f-xln, chky IP, foss, r P vgy por, NS + Cht, white-gray, opq
 LS, gray-tan, f-xln, silty foss, chky IP, NW por, mhd + few pc's Cht, gray, opq
 Shale, black carb
 LS, gray-tan, v-f-xln, silty foss, NW por, dense + Shale, mar, gray & gm



3900
 3950
 4000





LS, gray-tan, f-vxln, silty foss, chky IP, NV por, mhd + few pc's Cht, gray, opq

Shale, black carb

LS, gray-tan, vf-m icxln, silty foss, NV por, dense + Shale, mar, gray & gm

LS, crm-off white, f-vxln, sub ool-foss, P ixln por, NS, chky-dense

LS, crm-off white, vf-m icxln, sub ool, NV por, dense + Cht, white, silty foss, opq

Shale, black, dk gm

LS, crm-tan, f-mxln, ool, P iool por & P ixln por, SSSO(hvy), spt'd str, spt'd fluor, N odor

LS, crm-tan, f-vxln, chky IP, sub ool, rr P oom por, NS + Cht, white, opq

LS, crm-off white, f-vxln, sub ool, NV por, dense + Cht, white-crm, opq

LSAA w/nc Shale, black, gm & mar

LS, gray-tan, f-mxln, sub ool-foss, F-P ixln por & F-P vgy-pp por, VS SFO, spt'd str, spt'd dull fluor, N odor

LS, dolo, tan-crm, f-vxln, suc, P ixln por, NS + Cht, white, opq

LS, dolo, tan-brn, f-vxln, suc, P ixln por, NS

Shale, black carb

LS, crm-tan, f-mxln, foss & ool, P ipart por, spt'd asph str, NSFO, N odor

Vis 54 Wt 9.0 Fil 7.2 PH 11
Chi 4,000 LCM 1#
7/02/14 @ 4100

LS, dolo, tan-crm, f-vxin, suc, P ixin por, NS + Cnt, white, opq

LS, dolo, tan-brn, f-vxin, suc, P ixin por, NS

Shale, black carb

LS, crm-tan, f-mxin, foss & ool, P ipart por, spf d asph str, NSFO, N odor

LS, gray-brn, fxin foss, NV por, dense

LS, crm-tan, v-mxin, P ixin por & P pp por, SSFO, unf it str, unf dull fluor, frt odor + Cnt, gray, foss, trnsl

LS, crm-tan, f-vxin, sub ool, NV por, hd

LS, gray-white, fxin, ool, P iool por, NS + LS, lt gray-tan, v-mixin, NV por, hd & Cnt, white, ool, opq

LS, gray-tan, v-mixin, silty foss, NV por + Cnt, white, opq

LS, gray-off white, v-mixin, silty foss, hd, NV por + Cnt, white-tan, opq-trnsl

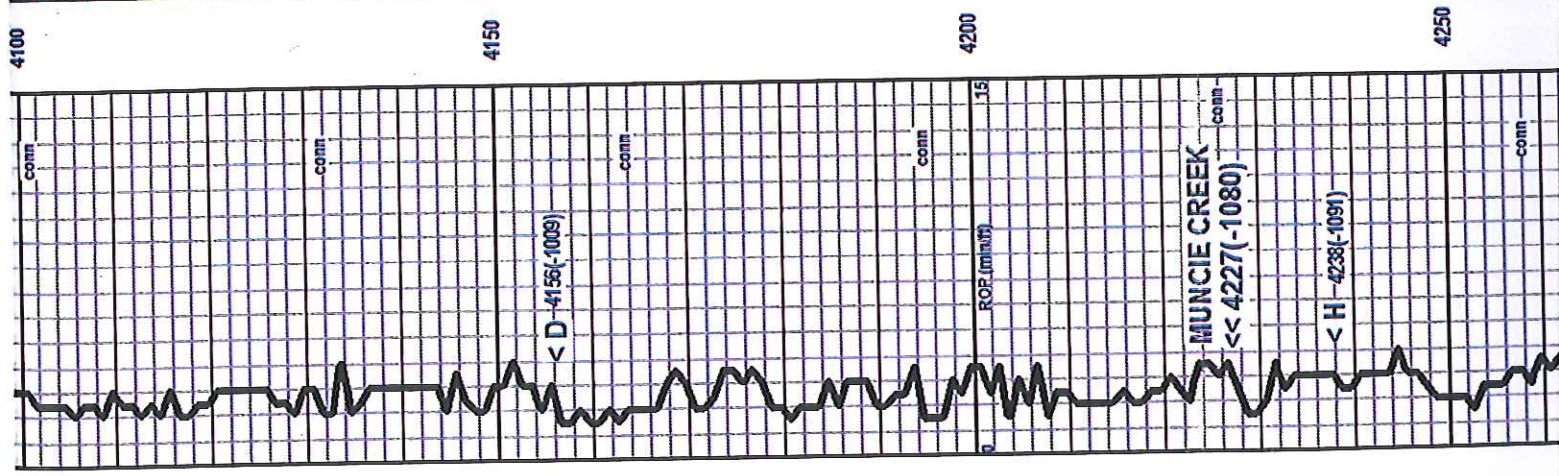
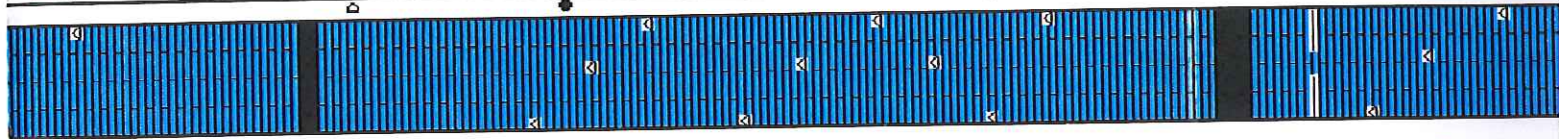
LSAA + LS, white-crm, f-vxin, chky & arg, sub ool-foss, NV por, m hd

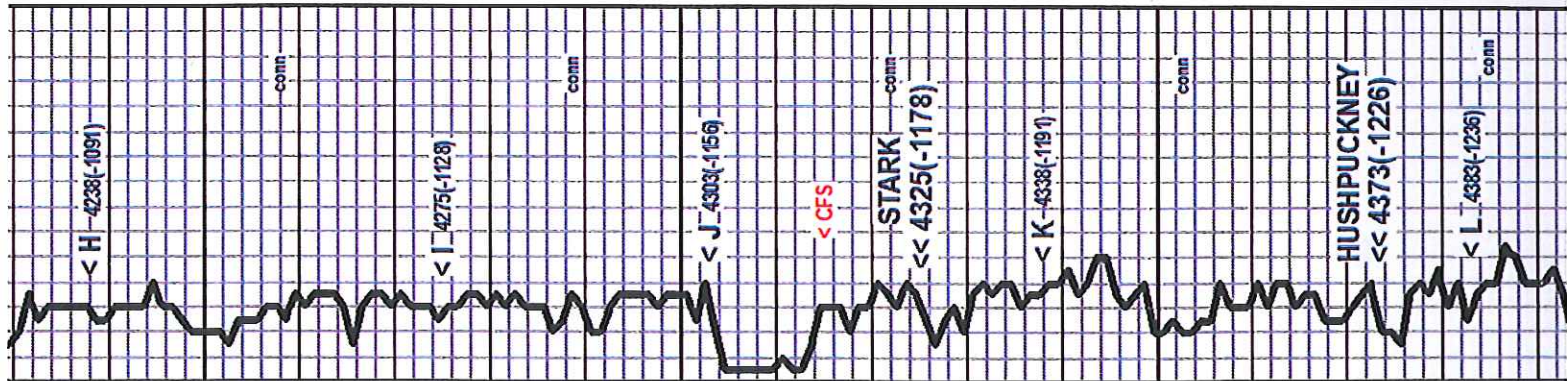
Shale, black carb (4250 spl)

LS, gray-brn, f-mxin, silty foss, P ixin por, NS, hd + Shale, black, dk gray & mar

LS, crm-tan, f-vxin, chky, silty foss, rr P ixin por & P pp por, rr spf d str, NSFO + Cnt, gray-tan, sub ool

LS, gray-tan, v-mixin, sub ool-foss, NV por, dense





4250

4300

4350

< H -4238(-1091)

< I -4275(-128)

< J -4303(-156)

< CFS

STARK << 4325(-1178)

< K -4338(-191)

HUSHPUCKNEY << 4373(-1226)

< L -4383(-1236)

conn

conn

conn

conn

conn

LS, tan-gray, fine, ool, F-F, sub por, N fluor, foul odor
 SSFO (nv), spt'd stn, N fluor, foul odor

LS, brn-gray, vf-mixln, foss, NV por, dense

Shale, black carb

LS, gray-brn, f-mixln, silty foss, NV por, dense

LS, gray-brn, f-vxln, arg, silty foss, NV por, dense

LS, crm-gray, f-m xln, chky IP, sub ool-foss, ir P
 pp por, spt'd stn, NSFO, N odor + Chl, gray, foss,
 opq

LS, crm-gray, f-m xln, sub ool-foss, few pc's P
 ipart por, NS

Shale, black carb

LS, crm-brn, xln, chky IP, foss & ool, NV por,
 mhd + Shale, mar, gm & gray

LS, dk brn-gray, vf-mixln, silty foss, NV por,
 dense

Shale, gm, gray & mar + Silty gray

Silty gray-gm + Shale, gray, gm, mar & black

Shale, mar, brn & gray + Silty gray

LS, gray-tan-crm, vf-xln, sub ool-foss, F-P ipart
 por, F-P vgy-pp por & few pc's P ocm por,
 S-FFO, spt'd-uf dk sh, dull spt'd fluor, V fnt
 odor + LS, gray-brown, xln, ool, NV por

Most LS, crm-brn-gray, vf-xln, silty foss, dense
 few pc's P pp por, SFO, spt'd stn, N fluor, V fnt
 odor

LS, tan-crm, vf-m xln, chky IP, F-P ixln por & F-P
 vgy-pp por, S-FFO, few gas bubb, unf it stn,
 unf dull fluor + LS, gray-crm, vf-xln, sub
 ool-foss, P pp por, SSFO, spt'd stn, dull spt'd
 fluor, chky IP-dense + Shale, brn, gm, gray &

Ran 25 stand short trip prior to DST #1.
 Very tight!

PIPE STRAP & SURVEY @ 4500
 Strap 1.93 short to board
 Survey 1 1/2 deg

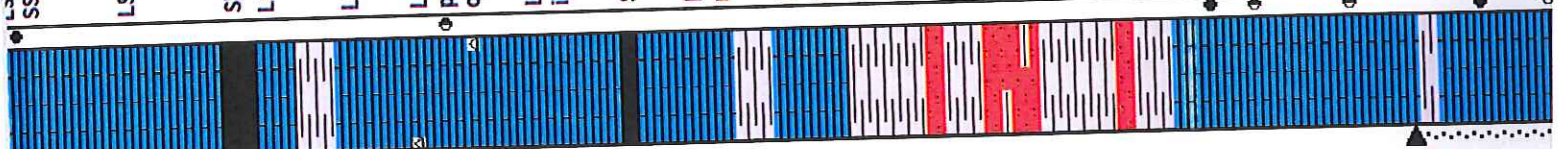
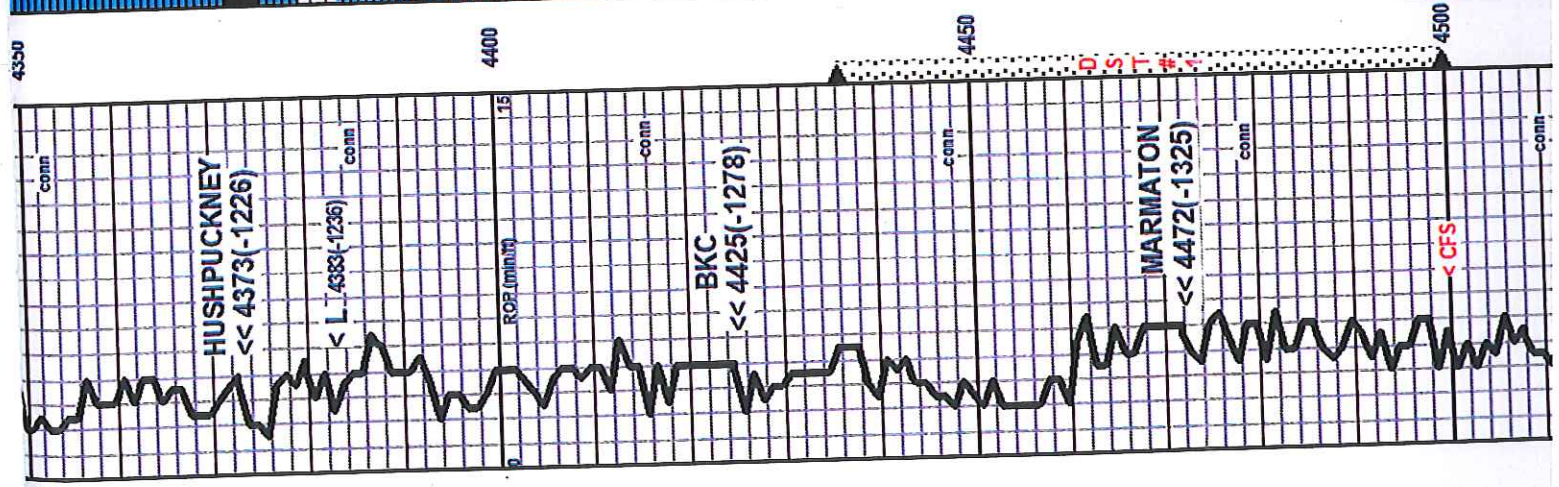
DST#1 4436 - 4500
 (Marmaton A)

30 30 60 90
 BLOW:
 IF Weak built to BOB in 29 min
 ISI Surface return
 FF Weak built to 7"
 FSI Surface return died 50 min
 RECOVERY: 248' GIP
 30' SM&GCO (4%g 99%o 3% m)
 62' GO (24%g 76%o)
 62' M&GCO (34%g 54%o 12% m)
 62' O&GCM (27%g 11%o 62% m)
 216' TOTAL FLUID (Gr 31 deg)

IHP 2245
 IFP 20 - 57
 ISIP 270
 FFP 60 - 103
 FSIP 445
 FHP 2160 BHT 116 deg F
 Vis 50 Wt 9.3 Fil 9.6 PH 10.5
 Chl 5,000 LCM #
 7/03/14 @ 4494

DST#2 4497 - 4541
 (Marmaton B & C)

30 30 60 60
 BLOW:
 IF Built to 14"



LS, tan-gray, fine, ool, F-F, sub por, N fluor, foul odor
 SSFO (nv), spt'd stn, N fluor, foul odor

LS, brn-gray, vf-mixln, foss, NV por, dense

Shale, black carb

LS, gray-brn, f-mixln, silty foss, NV por, dense

LS, gray-brn, f-vxln, arg, silty foss, NV por, dense

LS, crm-gray, f-m xln, chky IP, sub ool-foss, ir P
 pp por, spt'd stn, NSFO, N odor + Chl, gray, foss,
 opq

LS, crm-gray, f-m xln, sub ool-foss, few pc's P
 ipart por, NS

Shale, black carb

LS, crm-brn, xln, chky IP, foss & ool, NV por,
 mhd + Shale, mar, gm & gray

LS, dk brn-gray, vf-mixln, silty foss, NV por,
 dense

Shale, gm, gray & mar + Silty gray

Silty gray-gm + Shale, gray, gm, mar & black

Shale, mar, brn & gray + Silty gray

LS, gray-tan-crm, vf-xln, sub ool-foss, F-P ipart
 por, F-P vgy-pp por & few pc's P ocm por,
 S-FFO, spt'd-uf dk sh, dull spt'd fluor, V fnt
 odor + LS, gray-brown, xln, ool, NV por

Most LS, crm-brn-gray, vf-xln, silty foss, dense
 few pc's P pp por, SFO, spt'd stn, N fluor, V fnt
 odor

LS, tan-crm, vf-m xln, chky IP, F-P ixln por & F-P
 vgy-pp por, S-FFO, few gas bubb, unf it stn,
 unf dull fluor + LS, gray-crm, vf-xln, sub
 ool-foss, P pp por, SSFO, spt'd stn, dull spt'd
 fluor, chky IP-dense + Shale, brn, gm, gray &

FSIP 445
 FHP 2160 BHT 116 deg F
 Vis 50 Wt 9.3 Fil 9.6 PH 10.5
 Chl 5,000 LCM 1#
 7/03/14 @ 4494

DST#2 4497 - 4541
 (Marmaton B & C)

30 30 60 60
 BLOW:
 IF Built to 1/4"
 FF Built to 3/4"

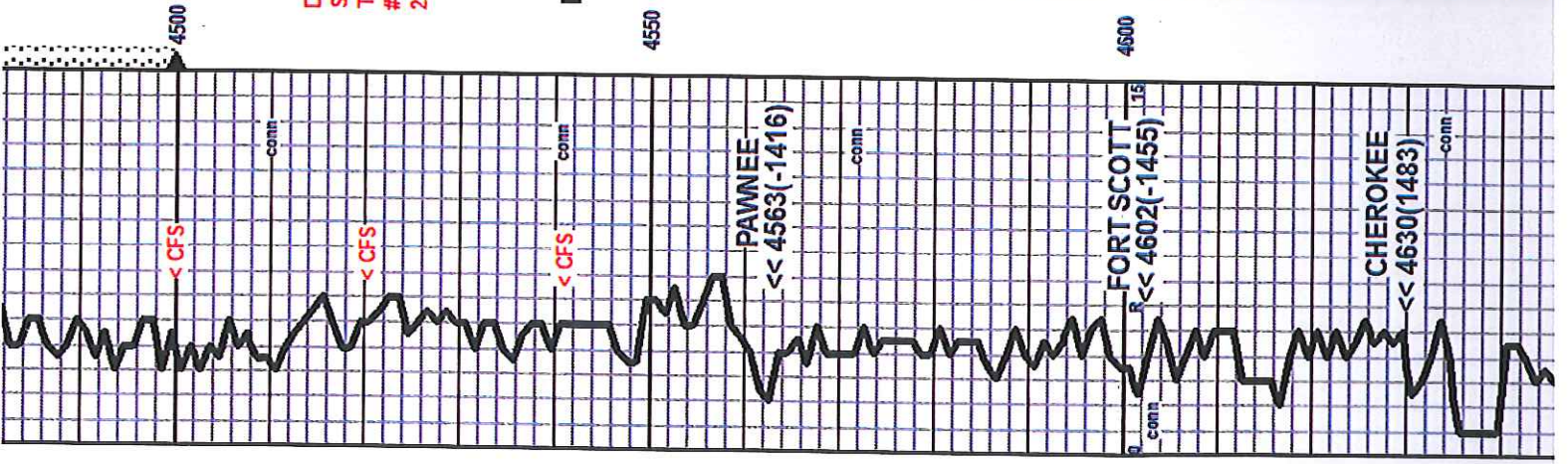
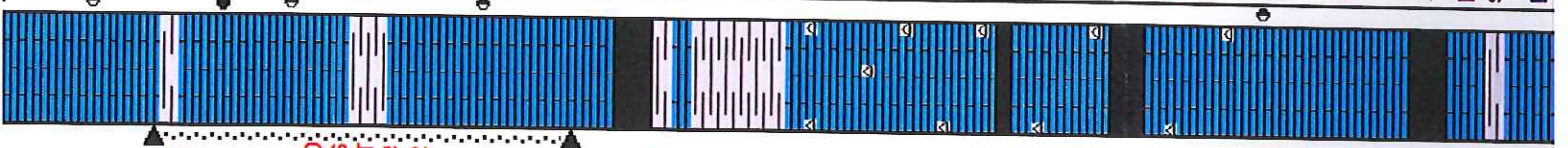
RECOVERY:
 20' W&OCM
 (9%o 2%w 89% m)

IHP 2248
 IFP 16 - 19
 ISIP 92
 FFP 13 - 20
 FSIP 138

FHP 2106 BHT 112 deg F
 Vis 46 Wt 9.2 Fil 11.2 PH 10
 Chl 6,800 LCM 1#

7/04/14 @ 4541

odor + LS, gray-brown, v. xln, ool, NV por
 Most LS, crm-brn-gray, v. xln, silty foss, dense, few pc's P pp por, S SFO, spt'd stn, N fluor, V frnt odor
 LS, tan-crm, v. m. xln, chky IP, F-P ixln por & F-P vgy-pp por, S SFO (f), few gas bubb, unf il stn, unf dull fluor + LS, gray-crm, v. xln, sub ool-foss, P pp por, SSFO, spt'd stn, dull spt'd fluor, chly IP-dense + Shale, brn, grm, gray & mar (4520 cfs spl's F odor)
 Shale, mar(silty), dk gray & grm
 LS, gray-tan, v. m. xln, sub ool-foss, NV por, dense + Shale vol A A
 LS, brn-gray-tan, v. xln, ool & foss, rr P ipart por, spt'd dk stn, NSFO, most NV por, dense, V frnt odor
 LS, lt gray-tan, m. xln, silty foss, dense, NV por
 Shale, black carb
 Shale, black, grm, gray & mar + LS, gray, v. m. xln, arg, NV por
 LS, lt gray-off white, v. xln, few pc's sub ool, P pp por, spt'd gi stn, NSFO, N odor + Cht, gray-tan, trnsi
 LS, tan-off white, v. xln, sub ool-foss, NV por, chky IP-dense, + Cht gray-tan, trnsi
 Shale, black carb + pyr
 LS, gray-tan, v. xln, chky-arg IP, sub ool-foss, NV por + Cht, tan-brn, silty foss, opq
 Shale, black carb
 LS, brn-tan, v. m. xln, ool, NV por, dense + Cht gray-tan, ool, opq-trnsi
 LS, gray-brn, v. xln, ool, F-P fool por, SS scummy res oil, spt'd stn, N fluor, N odor
 LS, brn-gray, m. xln, NV por, dense
 Shale, black carb
 LS, crm-white, v. xln, chky, foss & ool, NV por, st
 LS, gray-tan, v. m. xln, foss & ool, rr P vgy por,

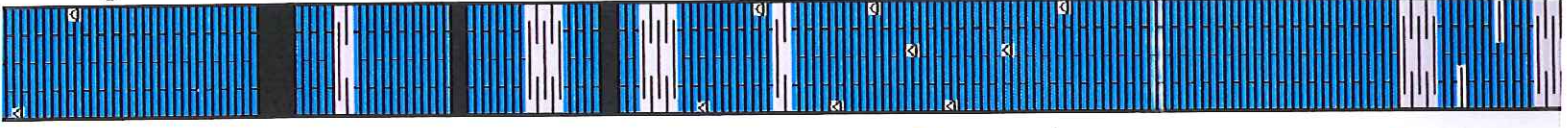
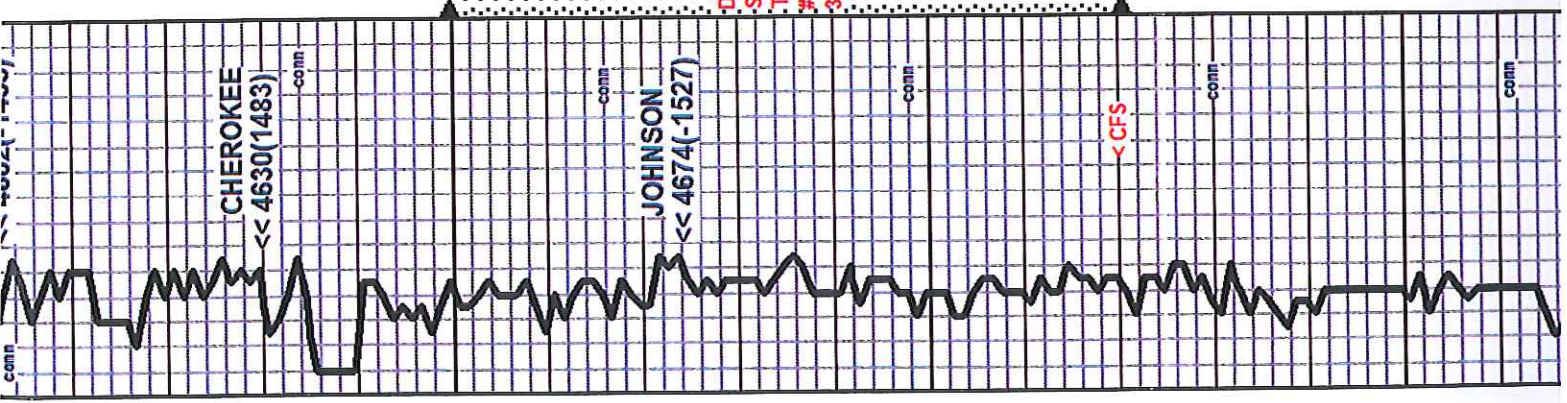


D
S
T

2

FORT SCOTT
 << 4602(-1455)

CHEROKEE
 << 4630(1483)



LS, brn-tan, vf-m icxn, ool, NV por, dense + Cht gray-tan, ool, opq-trnsl
 LS, gray-brn, vf-ixln, ool, F-P iool por, SS scummy res oil, spt'd str, N fluor, N odor
 LS, brn-gray, m icxn, NV por, dense
 Shale, black carb
 LS, crm-white, f-vxin, chky, foss & ool, NV por, sft
 LS, gray-tan, vf-m icxn, foss & ool, rr P vgy por, NS, most NV por, dense
 Shale, black carb
 LS, dk brn-gray, m icxn, NV por, dense
 Shale, brn, dk gray & gm
 LS, brn-gray, vxln, foss & ool, NV por, dense + Shale, black carb
 Shale, black, gray, m ar & gm
 LS, tan-gray, vf-m icxn, sub ool, few pc's P pp por, V SSFO, spt'd dk str, N fluor, N odor + Cht, brn-gray, trnsl-opq
 Most LS, brn-gray, vf-m icxn, silty foss, NV por, chky IP-dense + LS, brn-gray, vf-m icxn, silty foss, rr P vgy pp por, V SSFO, spt'd asph str, N fluor N odor + Cht, dk gray-brn, trnsl-opq
 LS, brn-gray, vf-m icxn, silty foss, NV por, dense + Cht, brn-gray, silty foss, trnsl
 LS, brn-off white, f-m icxn, sub ool-foss, NV por, chky IP-dense + Shale, mar, gm & black
 LS, gray-tan, f-vxin, silty foss, NV por, dense + Shale, black & dk gm
 LS, gray-off white, f-m ixln, arg, silty foss, P ixln por, rr spt'd str, NSFO, N odor + LS & Shale AA
 LS, gray-brn, arg, f-vxin, silty foss, NV por + Shale, black, dk gray, gm & mar
 LS, gray-tan, f-m ixln, silty foss, rr P pp por, spt'd str, NSFO + Shale, black, gm & mar

DST#3 4650 - 4720
 (Johnson Zone)
 30 30 30 30
BLOW:
 IF Surface died 10 min
 FF No blow
RECOVERY:
 5 OCM (6% @ 94% m)
 IHP 2370
 IFF 18 - 19
 ISIP 78
 FFP 19 - 23
 FSIP 35
 FHP 2160 BHT 116 deg F
 Vis 58 Wt 9.3 Fil 10.4 PH 10.5
 Cht 7,000 LCM 2#
 7/05/14 @ 4696

Shale, black & dk grn

LS, gray-off white, f-mxln, arg, silty foss, P ixln por, r sp'd stn, NSFO, N odor + LS & Shale AA

LS, gray-brn, arg, f-vfxln, silty foss, NV por + Shale, black, dk gray, gm & mar

LS, gray-tan, f-mxln, silty foss, r P pp por, sp'd stn, NSFO + Shale, black, gm & mar

Most Shale vol w/few clus SS gray-clr qtz, f-vfgm, mod sort, rd-sub rd, comp P ig por, NS & LS, gray-tan, f-vfxln, arg silty foss, NV por

Most Shale, mar, gray, gm & black + LS, brn-gray, vfxln, arg, NV por

Shale, mar, gray, gm & black, some silty + few clus SS, gray-gm, vfgm, some clus V pyr, sub rd, comp, NV por, NS

SS, white-gray-clr qtz, silty glauc, v-fmgm, mod sort, sub rd-sub ang, fri, F-P ig por, NS + abnd pyr & Shale, black, gm, gray & mar

SS, white, v-fgm, calc, sub rd, mod sort, P igpor, NS, silty glauc + LS, white-gray, fxln, scdy, v-fgm, NV por

LS, white-gray, fxln, scdy, vfgm, NV por

LS, white-erm, fxln, scdy, v-fmgm, chky IP, NV por

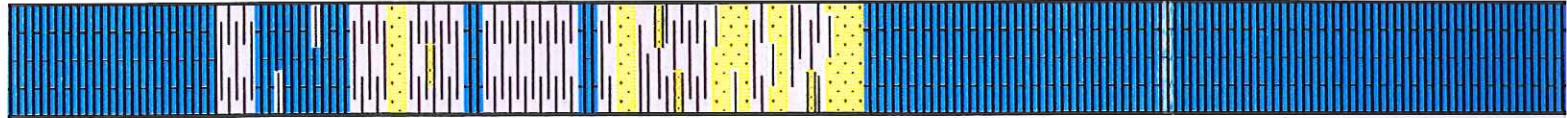
LSAA + LS, erm-tan, v-fmixln, silty scdy, NV por, dense

LS, white-erm, fxln, scdy-sub ool, f-mgm, chky IP, NV por

LS, white-erm, f-vfxln, scdy-sub ool, f-mgm, chky, NV por

LS, white-erm, fxln, scdy-sub ool, f-mgm, chky IP, NV por + LS, lt gray-white, vfxln, sub ool, NV por

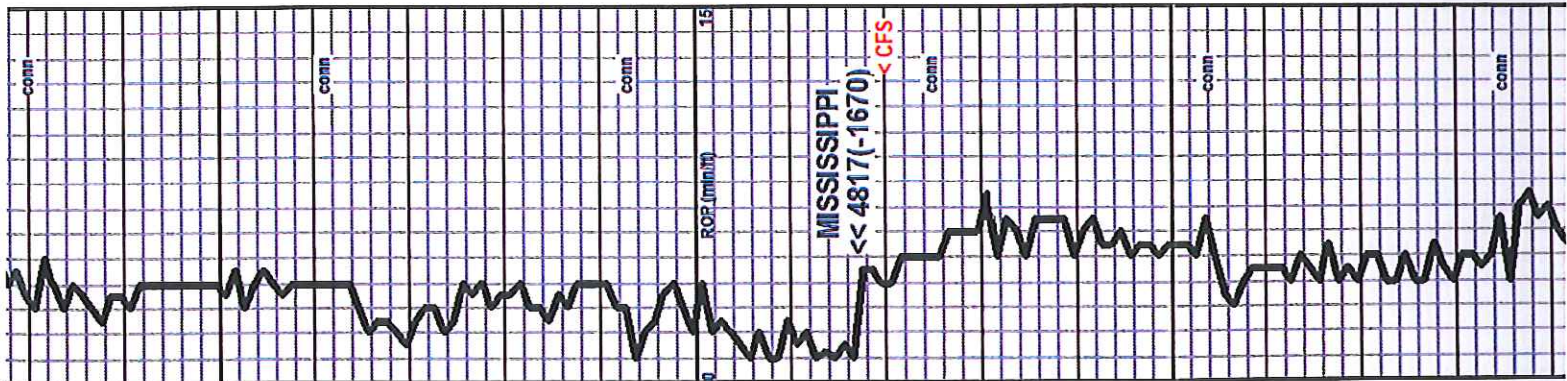
Vis 56 W# 9.3 Fil 15.6 PH 9.5
C#1 9,000 LCM 1#
7/06/14 @ 4820



4750

4800

4850



conn

conn

conn

conn

conn

conn

ROP (min/ft)

MISSISSIPPI
<< 4817 (-1670)
< CFS

LS, white-crm, fxl n, soy-sub ool, f-m gm, chky IP,
NW por

LS, white-crm, f-vxl n, soy-sub ool, f-m gm, chky,
NW por

LS, white-crm, fxl n, soy-sub ool, f-m gm, chky IP,
NW por + LS, lt gray-white, vxl n, sub ool, NW por
dense

Survey @ 4900, 2 deg



4900

4950

